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BIBDATASHEET

CONFIRMATION NO. 2371

Bib Data Sheet

SERIAL NUMBER 10/806,775	FILING DATE 03/22/2004 RULE	CLASS 415	GROUP ART UNIT 3745	ATTORNEY DOCKET NO. Hunt:FanArr1
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APPLICANTS

Lawrence G. Hopkins, Portland, OR;

** CONTINUING DATA *****

This appln claims benefit of 60/456,413 03/20/2003
 and claims benefit of 60/554,702 03/20/2004
 and is a CIP of PCT/US04/08578 03/19/2004

** FOREIGN APPLICATIONS *****

none

IF REQUIRED, FOREIGN FILING LICENSE GRANTED

** SMALL ENTITY **

** 06/08/2004

Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	STATE OR COUNTRY OR	SHEETS DRAWING 15	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 2
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance				
Verified and Acknowledged Examiner's Signature _____ Initials _____				

ADDRESS


26790
 LAW OFFICE OF KAREN DANA OSTER, LLC
 PMB 1020
 15450 SW BOONES FERRY ROAD #9
 LAKE OSWEGO , OR
 97035

TITLE


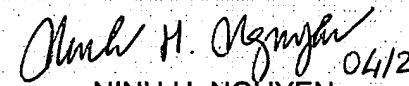
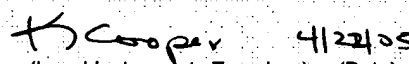
Fan array fan section in air-handling systems

FILING FEE RECEIVED 660	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
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CL 183

Issue Classification 	Application No.	Applicant(s)	
	10/806,775	HOPKINS, LAWRENCE G.	
	Examiner	Art Unit	
	Ninh H. Nguyen	3745	

ISSUE CLASSIFICATION									
ORIGINAL					CROSS REFERENCE(S)				
CLASS		SUBCLASS			CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)			
415		61			415	119			
INTERNATIONAL CLASSIFICATION					416	120			
F	0	4	D	25/16	417	3	423.5	426	
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 (Assistant Examiner) (Date)		 NINH H. NGUYEN PRIMARY EXAMINER (Primary Examiner) (Date)		Total Claims Allowed: 31	
 (Legal Instruments Examiner) (Date)				O.G. Print Claim(s) 1	O.G. Print Fig. 17

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
Final	Original	Final	Original	Final	Original	Final	Original
1	1	16	31		61		91
2	2		32		62		92
3	3		33		63		93
4	4		34		64		94
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Search Notes**Application No.**

10/806,775

Examiner

Ninh H. Nguyen

Applicant(s)

HOPKINS, LAWRENCE G.

Art Unit

3745

SEARCHED

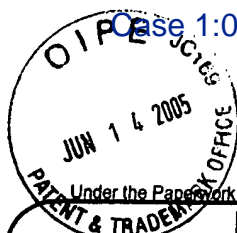
Class	Subclass	Date	Examiner
Updated		4/20/2005	NHN
415	60, 61		
	108, 177		
	119		
416	120		
417	3, 423.5		
	426		
454	338		

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner
All	above	4/20/2005	NHN

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Updated East search	4/20/2005	NHN
Consulted with Joyce (454) Freay (417)		



RCE IPW 3

PTO/SB/30 (04-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Request for Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	10/806,775
Filing Date	March 22, 2004
First Named Inventor	Hopkins
Art Unit	3745
Examiner Name	Nguyen, Ninh H.
Attorney Docket Number	Hunt:FanArr1

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

ii. ☐ Other _____

b. ☒ Enclosed

i. ☒ Amendment/Reply

ii. ☐ Affidavit(s)/ Declaration(s)

iii. ☒ Information Disclosure Statement (IDS)

iv. ☐ Other express mail certificate; and return receipt postcard

2. **Miscellaneous**

a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

b. ☐ Other _____

3. **Fees**

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

a. ☒ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 50-2115. I have enclosed a duplicate copy of this sheet.

i. ☐ RCE fee required under 37 CFR 1.17(e)

ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)

iii. ☒ Other **Any fees necessary to maintain the pendency of this application**

b. ☒ Check in the amount of \$ 395 enclosed

c. ☐ Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

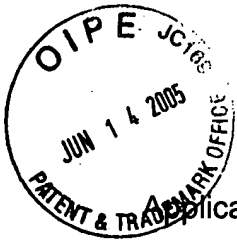
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED			
Signature		Date	June 14, 2005
Name (Print/Type)	Karen Dana Oster	Registration No.	37,621

CERTIFICATE OF MAILING OR TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.			
Signature		Date	June 14, 2005
Name (Print/Type)	Karen Dana Oster	Date	June 14, 2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

06/17/2005 WABDELRI 00000063 10806775 395.00 OP 01 FC:2801

Application No. 10/806,775
Amendment dated June 14, 2005



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
PATENT APPLICATION EXAMINING OPERATIONS

Applicant: Hopkins Group Art Unit: 3745
Serial No.: 10/806,775 Examiner: Nguyen, Ninh H.
Filed: March 22, 2004 Docket No: Hunt:FanArr1
Title: Fan Array Fan Section in Air-Handling Systems

AMENDMENT

Law Office of Karen Dana Oster, LLC
PMB 1020
15450 SW Boones Ferry Rd. #9
Lake Oswego, OR 97035
June 14, 2005

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Please amend the above-identified patent application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks/Arguments begin on page 9 of this paper.

CERTIFICATE UNDER 37 CFR 1.10
CERTIFICATE OF MAILING BY
"EXPRESS MAIL"

Express Mail No.: ET836240778US

Date of Deposit: June 14, 2005

I hereby certify that the following documents relating to a Request for Continued Examination for U.S. Utility Patent Application 10/806,775, entitled FAN ARRAY FAN SECTION IN AIR-HANDLING SYSTEMS and invented by Hopkins are being deposited with the United States Postal Service, "Express Mail Post Office to Addressee" service under 37 CFR 1.10, on the date indicated above and is addressed to Mail Stop RCE, Commissioner for Patents, P.O. Box 1450; Alexandria, VA 22313-1450.

- ☒ Request for Continued Examination (RCE) Transmittal Form PTO/SB/30 (in duplicate)
- ☒ Fee Transmittal Form (in duplicate)
- ☒ check for \$ 395 for filing fees
- ☒ Amendment (9 pages)
- ☒ Information Disclosure Statement and Attached ☒ Foreign Reference(s) and ☒ non-Patent reference(s)
- ☒ a return acknowledgement postcard
- ☒ this Certificate of Mailing by Express Mail



Karen Dana Oster

Hunt:FanArr1

Application No. 10/806,775
Amendment dated June 14, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (previously presented): A fan array fan section in an air-handling
2 system comprising:
3 (a) at least six fan units;
4 (b) said at least six fan units arranged in a fan array;
5 (c) an air-handling compartment within which said fan array of fan units
6 is positioned; and
7 (d) an array controller for controlling said at least six fan units to run at
8 substantially peak efficiency by strategically turning selective ones
9 of said at least six fan units on and off.

10
1 Claim 2 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, wherein said at least six fan units are plenum fans.

3
1 Claim 3 (original): The fan array fan section in an air-handling system of
2 claim 1, wherein said air-handling compartment has an airway path, said airway path
3 being less than 72 inches.

4
1 Claim 4 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, wherein said at least six fan units are a plurality of fan units
3 arranged in a fan array configuration selected from the group consisting of:

- 4 (a) a true array configuration;
5 (b) a spaced pattern array configuration;
6 (c) a checker board array configuration;

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Amendment dated June 14, 2005

- (d) rows slightly offset array configuration;
- (e) columns slightly offset array configuration; and
- (f) a staggered array configuration.

Claim 5 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein said at least six fan units include at least two vertically arranged fan units.

Claim 6 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units is positioned within a fan unit chamber.

Claim 7 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units is suspended within a respective said fan unit chamber such that there is an air relief passage therebelow.

Claim 8 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units is positioned within a fan unit chamber having at least one acoustically absorptive insulation surface.

Claim 9 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units are mounted in a grid system.

Claim 10 (original): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units has a fan wheel diameter, wherein spacing between said at least six fan units is less than 60% of said fan wheel diameter.

Claim 11 (cancelled):

Application No. 10/806,775
Amendment dated June 14, 2005

2
1 Claim 12 (cancelled):
2

1 Claim 13 (cancelled):
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1 Claim 14 (cancelled):
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1 Claim 15 (cancelled):
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1 Claim 16 (cancelled):
2

1 Claim 17 (cancelled):
2

1 Claim 18 (cancelled):
2

1 Claim 19 (cancelled):
2

1 Claim 20 (cancelled):
2

1 Claim 21 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, further comprising an array of backdraft dampeners, each
3 backdraft dampener in line with a respective fan unit.
4

1 Claim 22 (cancelled):
2

1 Claim 23 (currently amended): The fan array fan section in an air-
2 handling system of claim 1, wherein each fan unit has a peak efficiency operating range
3 outside of which it operates at a reduced efficiency, wherein said array controller is
4 programmed to operate said at least six fan units at substantially peak efficiency by

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Amendment dated June 14, 2005

5 strategically turning off at least one ~~fan unit~~ fan unit operating at reduced efficiency and
6 running the remaining fan units within said peak efficiency operating range.

7
1 Claim 24 (cancelled):
2

1 Claim 25 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, said array controller is programmed to operate said at least
3 six fan units at peak efficiency for a performance level based on a criteria selected from
4 the following group of criteria:

- 5 (a) air volume;
6 (b) level of air flow;
7 (c) pattern of air flow; and
8 (d) number of fan units to operate.
9

1 Claim 26 (cancelled):
2

1 Claim 27 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, said array controller is programmed to operate said at least
3 six fan units to produce a stable operating point and eliminate the surge effects.
4

1 Claim 28 (cancelled):
2

1 Claim 29 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, said array controller is programmed to selectively control
3 the speed of each of said at least six fan units to run at substantially peak efficiency.
4

1 Claim 30 (cancelled):
2

Application No. 10/806,775
Amendment dated June 14, 2005

1 Claim 31 (previously presented): The fan array fan section in an air-
2 handling system of claim 1, said air-handling compartment positionable within a
3 structure such that said air-handling system conditions the air of said structure.

1 Claim 32 (new): A fan array fan section in an air-handling system
2 comprising:

- 3 (a) a plurality of independently controllable fan units, each fan unit
4 comprising an inlet cone, a fan, and a motor;
5 (b) said plurality of fan units arranged in a fan array;
6 (c) an air-handling compartment within which said fan array of fan units
7 is positioned; and
8 (d) an array controller for controlling said plurality of fan units to run at
9 substantially peak efficiency by strategically turning selective ones
10 of said plurality of fan units on and off.

1 Claim 33 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein said plurality of fan units are plenum fans.

1 Claim 34 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein said air-handling compartment has an airway path, said airway path
3 being less than 72 inches.

1 Claim 35 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein said plurality of fan units are a plurality of fan units arranged in a fan
3 array configuration selected from the group consisting of:

- 4 (a) a true array configuration;
5 (b) a spaced pattern array configuration;
6 (c) a checker board array configuration;
7 (d) rows slightly offset array configuration;

Application No. 10/806,775

Amendment dated June 14, 2005

8 (e) columns slightly offset array configuration; and

9 (f) a staggered array configuration.

10
1 Claim 36 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein said plurality of fan units include at least two vertically arranged fan
3 units.

4
1 Claim 37 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein each of said plurality of fan units is positioned within a fan unit
3 chamber.

4
1 Claim 38 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein each of said plurality of fan units is suspended within a respective
3 said fan unit chamber such that there is an air relief passage therebelow.

4
1 Claim 39 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein each of said plurality of fan units is positioned within a fan unit
3 chamber having at least one acoustically absorptive insulation surface.

4
1 Claim 40 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein each of said plurality of fan units is mounted in a grid system.

3
1 Claim 41 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein each of said plurality of fan units has a fan wheel diameter, wherein
3 spacing between said plurality of fan units is less than 60% of said fan wheel diameter.

4
1 Claim 42 (new): The fan array fan section in an air-handling system of
2 claim 32, further comprising an array of backdraft dampeners, each backdraft dampener
3 in line with a respective fan unit.

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Amendment dated June 14, 2005

1 Claim 43 (new): The fan array fan section in an air-handling system of
2 claim 32, wherein each fan unit has a peak efficiency operating range outside of which it
3 operates at a reduced efficiency, wherein said array controller is programmed to
4 operate said plurality of fan units at substantially peak efficiency by strategically turning
5 off at least one fan unit operating at reduced efficiency and running the remaining fan
6 units within said peak efficiency operating range.

7
1 Claim 44 (new): The fan array fan section in an air-handling system of
2 claim 32, said array controller is programmed to operate said plurality of fan units at
3 peak efficiency for a performance level based on a criteria selected from the following
4 group of criteria:

- 5 (a) air volume;
6 (b) level of air flow;
7 (c) pattern of air flow; and
8 (d) number of fan units to operate.

9
1 Claim 45 (new): The fan array fan section in an air-handling system of
2 claim 32, said array controller is programmed to operate said plurality of fan units to
3 produce a stable operating point and eliminate the surge effects.

4
1 Claim 46 (new): The fan array fan section in an air-handling system of
2 claim 32, said array controller is programmed to selectively control the speed of each of
3 said plurality of fan units to run at substantially peak efficiency.

4
1 Claim 47 (new): The fan array fan section in an air-handling system of
2 claim 32, said air-handling compartment positionable within a structure such that said
3 air-handling system conditions the air of said structure.

Application No. 10/806,775
Amendment dated June 14, 2005

REMARKS

Claims 1-10, 21, 23, 25, 27, 29, and 31-47 are pending in the application after this amendment. The addition or cancellation of claims is not to be considered in any way an indication of applicant's position on the merits of the added and/or cancelled claims.

Applicant submits herewith an Information Disclosure Statement (IDS) and references of which applicant was recently made aware. Applicant respectfully requests that the references set forth on the IDS be considered and acknowledged. Applicant specifically does not admit that the IDS references are prior art.

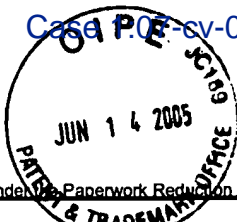
Finally, applicant has noted that in the PAIR system there are five (5) entries for March 22, 2004 that are labeled as "APPENDIX TO THE SPECIFICATION." These appendices were submitted as appendices to the Petition to Make Special, not as appendices to the specification.

Please charge Deposit Account No. 50-2115 for any additional fees that may be required.

Respectfully submitted,



Karen Dana Oster
Reg. No. 37,621
Of Attorneys of Record
Tel: (503) 810-2560



PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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Substitute for PTO Form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	10/806,775
Filing Date	March 22, 2004
First Named Inventor	Hopkins
Art Unit	3745
Examiner Name	Nguyen, Ninh H.
Attorney Docket Number	Hunt:FanArr1

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 3898019	08-05-1975	Reznick et al.	
		US- 4241871	12-30-1980	Newell, III et al.	
		US- 4426960	01-24-1984	Hart	
		US- 4800653	01-31-1989	Steffen	
		US- 5136465	08-04-1992	Benck et al.	
		US- 5210680	05-11-1993	Scheibler	
		US- 5546272	08-13-1996	Moss et al.	
		US- 5572403	11-05-1996	Mills	
		US- 5664995	09-09-1997	O'Keefe	
		US- 5745041	04-28-1998	Moss	
		US- 5787971	08-04-1998	Dodson	
		US- 5793610	08-11-1998	Schmitt et al.	
		US- 6031717	02-29-2000	Baddour et al.	
		US- 6257832 B1	07-10-2001	Lyskowski et al.	
		US- 6386826 B1	05-14-2002	Jacob	
		US- 6463891 B2	10-15-2002	Algrain et al.	
		US- 6,648,590 B2	11-18-2003	Huang et al.	
		US- 6,675,739 B2	01-13-2004	Terrell et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
		EP 0205979 A1	12-30-1986	Mizutani et al.		

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

● PRINTER RUSH ●

(PTO ASSISTANCE)

Application : <u>10 806 775</u>	Examiner : <u>Nguyen</u>	GAU : <u>3745</u>
From : <u>V.T.</u>	Location : <u>IDC</u> FMF FDC	Date : <u>7/7/05</u>

Tracking #: _____ Week Date: _____

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449		<input type="checkbox"/> Continuing Data
<input checked="" type="checkbox"/> IDS	<u>3/22/04</u>	<input type="checkbox"/> Foreign Priority
<input type="checkbox"/> CLM		<input type="checkbox"/> Document Legibility
<input type="checkbox"/> IIFW		<input type="checkbox"/> Fees
<input type="checkbox"/> SRFW		<input type="checkbox"/> Other
<input type="checkbox"/> DRW		
<input type="checkbox"/> OATH		
<input type="checkbox"/> 312		
<input type="checkbox"/> SPEC		

[RUSH] MESSAGE: Please initial / line through citations.

Thank You

[XRUSH] RESPONSE: The IDS will be considered in the next Office Action in response to the RCE dated 06/14/05.

INITIALS: pln

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.
REV 10/04



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HUNT:FANARRI	2371
26790	7590	08/18/2005	EXAMINER	
LAW OFFICE OF KAREN DANA OSTER, LLC			NGUYEN, NINH H	
PMB 1020			ART UNIT	
15450 SW BOONES FERRY ROAD #9			PAPER NUMBER	
LAKE OSWEGO, OR 97035			3745	

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/806,775

Applicant(s)

HOPKINS, LAWRENCE G.

Examiner

Ninh H. Nguyen

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 21, 23, 25, 27, 29 and 31-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-47 is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 10, 27, 29 and 31 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 21, 23 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/22/04, 06/14/05</u> | 6) <input type="checkbox"/> Other: _____ |

Application/Control Number: 10/806,775
Art Unit: 3745

Page 2

DETAILED ACTION

This Office Action is in response to the Request for Continued Examination (RCE) dated 06/14/05. In reviewing of the IDS submitted with the RCE, the US patent number 6, 463,891 to Algrain et al. was found to read on claims 1-6, 9, 10, 27, 29, and 31. Therefore, the Examiner regretfully withdraws the allowability of the aforementioned claims.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 9, 10, 27, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Algrain et al.

Algrain discloses a fan array fan section in an air-handling system (Figs. 1-3, 4A, 4B), comprising a plurality of fan units arranged in an array (Fig. 2); an air-handling compartment within which the fan array of fan units is positioned (Fig. 2); an array controller strategically turning the selective ones of the plurality of fans on and off (Fig. 3, 4A, 4B);

wherein the air-handling compartment has an airway path, the airway path being less than 72 inches (the airway path being between the Engine Coolant Core and the fans 10, 12 in Fig. 2);

wherein the plurality of fan units are arranged in a true array configuration (Fig. 2);

wherein the plurality comprises at least two vertically arranged fan units (Fig. 2);

Application/Control Number: 10/806,775

Page 3

Art Unit: 3745

wherein each of the plurality of fan units is positioned within a fan unit chamber (Fig. 2).

However, Algrain does not disclose the fan array fan section comprises at least six fan units as claimed.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made, to make the fan array fan section of Algrain with at least 6 fan units to satisfy the cooling requirement of the Engine Coolant Core as taught by Algrain (col. 9, lines 47-53).

Allowable Subject Matter

3. Claims 32-47 are allowed. The claims are deemed to be a non-obvious improvement over the invention patented in Pat. No. 5,788,568. The improvement is an array controller for turning selective ones of the fan units on and off.

4. Claims 7, 8, 21, 23, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

The prior art made of record but not relied upon is considered pertinent to applicant's disclosure and consists of 1 patent.

Noba (4,651,922) is cited to show a fan array having a controller.

Application/Control Number: 10/806,775
Art Unit: 3745

Page 4

Information Disclosure Statement

In the previous Office Action, only page 1 of the PTO form 1449 dated 03/22/04 was attached. The second page of that form 1449 is attached in this Office Action along with the IDS of 06/14/05.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is (571) 273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Application/Control Number: 10/806,775

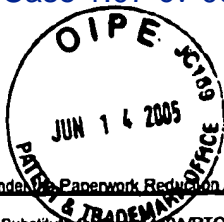
Page 5

Art Unit: 3745

system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).


NINH H. NGUYEN
PRIMARY EXAMINER

Nhn
August 4, 2005



PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for PTO Form 149A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of

2

Complete if Known

Application Number	10/806,775
Filing Date	March 22, 2004
First Named Inventor	Hopkins
Art Unit	3745
Examiner Name	Nguyen, Ninh H.
Attorney Docket Number	HuntFanAm1

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (If known)			
<i>nm</i>		US- 3898019	08-05-1975	Reznick et al.	
		US- 4241871	12-30-1980	Newell, III et al.	
		US- 4426960	01-24-1984	Hart	
		US- 4800653	01-31-1989	Steffen	
		US- 5136465	08-04-1992	Benck et al.	
		US- 5210680	05-11-1993	Scheibler	
		US- 5546272	08-13-1996	Moss et al.	
		US- 5572403	11-05-1996	Mills	
		US- 5664995	09-09-1997	O'Keefe	
		US- 5745041	04-28-1998	Moss	
		US- 5787971	08-04-1998	Dodson	
		US- 5793610	08-11-1998	Schmitt et al.	
		US- 6031717	02-29-2000	Baddour et al.	
		US- 6257832 B1	07-10-2001	Lyskowski et al.	
		US- 6386826 B1	05-14-2002	Jacob	
		US- 6463891 B2	10-15-2002	Algrain et al.	
<i>nm</i>		US- 6,648,590 B2	11-18-2003	Huang et al.	
		US- 6,675,739 B2	01-13-2004	Terrell et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (If known)				
<i>nm</i>		EP 0205979 A1	12-30-1986	Mizutani et al.		

Examiner
Signature*Nguyen, Ninh H.*Date
Considered

08/24/05

*EXAMINER: This reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language translation is attached.

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CL 206

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CL 207

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 2

Complete if Known

Application Number	
Filing Date	March 22, 2004
First Named Inventor	Hopkins
Art Unit	3745
Examiner Name	NINH NGUYEN
Attorney Docket Number	HuntFanArt

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
Ninh		US- 4767262	08-30-1988	Simon	/
		US- 4133374	01-09-1979	York	
		US- 5632677	05-27-1997	Elkins	
		US- 6155335	12-05-2000	Acre et al.	
		US- 6386969 B1	05-14-2002	O'Brien	
		US- 6388880 B1	05-14-2002	El-Ghobashy et al.	
		US- 6407918 B1	06-18-2002	Edmunds et al.	
		US- 6414845 B2	07-02-2002	Bonet	
	US- 6427455 B1	08-06-2002	Furubayashi		
Ninh		US- 6436130	08-20-2002	Philips et al.	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ² Number ³ Kind Code ⁴ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁵

Examiner Signature	<i>Ninh H. Nguyen</i>	Date Considered	09/10/04
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language translation is attached.

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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		Application Number	10/806,775		
		Filing Date	March 22, 2004		
		First Named Inventor	Hopkins		
		Art Unit	3745		
		Examiner Name	NGUYEN, N.		
Sheet	2	of	2	Attorney Docket Number	HuntFanAm1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
nlm		The Parallel and Series Operation, Sunon Group web page, http://www.sunon.com/english/wealth/tech/tech-06.htm , at least as early as March 15, 2004, 2 pages, Sunon Group, Taiwan.	
		Series and Parallel Fans, HighBeam Research web page, http://static.highbeam.com/m/machinedesign/january261995/seriesandparallelfans/index.htm , January 26, 1995, 1 page, HighBeam Research, LLC.	
		MCLEOD, IAN, Using Fans in Series and Parallel: Performance Guidelines, embpapst web page, http://www.papstplc.com/features/articles/art006&print=true , at least as early as March 15, 2004, 3 pages, emb-Papst Automotive and Drives (UK) Ltd., UK.	
		Technical Bulletin: CLEANPAK M/R/PF Multi/Redundant/Plenum Fan, at least as early as March 15, 2004, 3 pages, CLEANPAK International, Clackamas, Oregon.	
		Installation Operating and Maintenance Manual, 2003, 12 pages, Greenheck Fan Corp., Schofield, Wisconsin.	
nlm		DPL Series - Delhi Plenum Fan: Installation and Maintenance Instructions, November 2001, 2 pages, Delhi Industries Inc., Delhi, Ontario, Canada.	

Examiner Signature	<i>Thanh H. Nguyen</i>	Date Considered	08/04/05
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Notice of References Cited	Application/Control No. 10/806,775	Applicant(s)/Patent Under Reexamination HOPKINS, LAWRENCE G.	
	Examiner Ninh H. Nguyen	Art Unit 3745	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-4,651,922	03-1987	Noba, Masahiko	236/35
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
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	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims

Application/Control No.

10/806,775

Examiner

Ninh H. Nguyen

Applicant(s)/Patent under
Reexamination

HOPKINS, LAWRENCE G.

Art Unit

3745

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
+	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
Final	Original	8/4/05									
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	7	0									
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Search Notes

Application/Control No.

10/806,775

Examiner

Ninh H. Nguyen

Applicant(s)/Patent under
Reexamination

HOPKINS, LAWRENCE G.

Art Unit

3745

SEARCHED


Class	Subclass	Date	Examiner
Updated		8/4/2005	NHN

INTERFERENCE SEARCHED

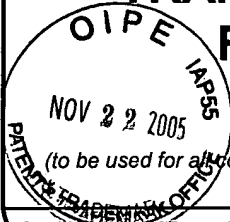
Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Updated East search	8/4/2005	NHN

Please type a plus sign (+) inside this box Approved for use through 10/31/02. OMB 0651-0031
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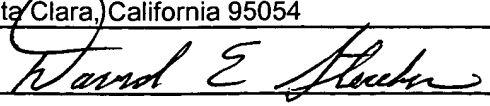
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	TRANSMITTAL FORM	Application Number	10/806,775	
		Filing Date	03/22/2004	
		First Inventor	Lawrence G. Hopkins	
		Confirmation No.	2371	
		Group Art Unit	3745	
		Examiner Name	Ninh H. Nguyen	
Total Number Of Pages In This Submission		10	Attorney Docket No.	HTR007-1P US

ENCLOSURES (check all that apply)

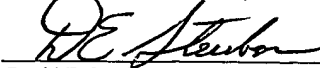
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| <input type="checkbox"/> Fee Transmittal Form | <input type="checkbox"/> Assignment Papers
(for an Application) | <input type="checkbox"/> After Allowance Communication to Group |
| <input type="checkbox"/> Fee Attached) | <input type="checkbox"/> Drawing(s) | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences |
| <input checked="" type="checkbox"/> Amendment / Reply | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Group
(Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declarations | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Status Letter |
| <input type="checkbox"/> Extension of Time Request | <input type="checkbox"/> Power of Attorney, Revocation of Previous Powers; And Statement Under 37 CFR 3.73(b) | <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): |
| <input type="checkbox"/> Express Abandonment Request | <input type="checkbox"/> Terminal Disclaimer | Return Receipt Postcard |
| <input type="checkbox"/> Information Disclosure Statement | <input type="checkbox"/> Request for Refund | |
| <input type="checkbox"/> Certified Copy of Priority Document(s) | <input type="checkbox"/> CD, Number of CD(s) _____ | |
| <input type="checkbox"/> This is a Response to Missing Parts/ Incomplete Application under 37 CFR 1.52 or 1.53 | Remarks | |
| <input type="checkbox"/> Copy of Notice To File Missing Parts (2 pages) | Please charge Deposit Account 50-2263 for any fee due. | |

SIGNATURE OF APPLICANT, ATTORNEY OR AGENT

Firm or Individual Name	David E. Steuber (Reg. No. 25,557) Silicon Valley Patent Group LLP 2350 Mission College Boulevard, Suite 360 Santa Clara, California 95054
Signature	
Date	11/18/2005

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 David E. Steuber

 11/18/2005
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	10/806,775	Confirmation No.	2371
First Inventor	Lawrence G. Hopkins	Filing Date	03/22/2004
Tech. Center/ Art Unit	3745	Examiner	Ninh H. Nguyen
Title:	Fan Array Fan Section In Air-Handling Systems		
Docket No.:	HTR007-1P US	Customer No.:	34036

Santa Clara, California
November 18, 2005

Mail Stop Amendment
COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Dear Sir:

In response to the Office Action dated August 18, 2005, please amend the above-identified application as follows.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 8 of this paper.

Appl. No. 10/806,775
Amdt dated 11/18/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listings of Claims:

Claim 1 (currently amended): A fan array fan section in an air-handling system comprising:

- (a) at least six fan units;
- (b) said at least six fan units arranged in a fan array;
- (c) an air-handling compartment within which said fan array of fan units is positioned; and
- (d) an array controller for controlling said at least six fan units to run at substantially peak efficiency by strategically turning selective ones of said at least six fan units on and off, wherein each fan unit has a peak efficiency operating range outside of which it operates at a reduced efficiency, and wherein said array controller is programmed to operate said at least six fan units at substantially peak efficiency by strategically turning off at least one fan unit operating at reduced efficiency and running the remaining fan units within said peak efficiency operating range.

Claim 2 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein said at least six fan units are plenum fans.

Claim 3 (original): The fan array fan section in an air-handling system of claim 1, wherein said air-handling compartment has an airway path, said airway path being less than 72 inches.

Claim 4 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein said at least six fan units are a plurality of fan units arranged in a fan array configuration selected from the group consisting of:

- (a) a true array configuration;
- (b) a spaced pattern array configuration;

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Amdt dated 11/18/2005

- (c) a checker board array configuration;
- (d) rows slightly offset array configuration;
- (e) columns slightly offset array configuration; and
- (f) a staggered array configuration.

Claim 5 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein said at least six fan units include at least two vertically arranged fan units.

Claim 6 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units is positioned within a fan unit chamber.

Claim 7 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units is suspended within a respective said fan unit chamber such that there is an air relief passage therebelow.

Claim 8 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units is positioned within a fan unit chamber having at least one acoustically absorptive insulation surface.

Claim 9 (previously presented): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units are mounted in a grid system.

Claim 10 (original): The fan array fan section in an air-handling system of claim 1, wherein each of said at least six fan units has a fan wheel diameter, wherein spacing between said at least six fan units is less than 60% of said fan wheel diameter.

Claim 11 (cancelled):

Claim 12 (cancelled):

Claim 13 (cancelled):

Claim 14 (cancelled):

Claim 15 (cancelled):

Claim 16 (cancelled):

SILICON VALLEY
PATENT GROUP LLP
50 Mission College Blvd
Suite 360
Santa Clara, CA 95054
(408) 982-8200
FAX (408) 982-8210

Appl. No. 10/806,775
Amdt dated 11/18/2005

Claim 17 (cancelled):

Claim 18 (cancelled):

Claim 19 (cancelled):

Claim 20 (cancelled):

Claim 21 (previously presented): The fan array fan section in an air-handling system of claim 1, further comprising an array of backdraft dampeners, each backdraft dampener in line with a respective fan unit.

Claim 22 (cancelled):

Claim 23 (cancelled):

Claim 24 (cancelled):

Claim 25 (previously presented): The fan array fan section in an air-handling system of claim 1, said array controller is programmed to operate said at least six fan units at peak efficiency for a performance level based on a criteria selected from the following group of criteria:

- (a) air volume;
- (b) level of air flow;
- (c) pattern of air flow; and
- (d) number of fan units to operate.

Claim 26 (cancelled):

Claim 27 (previously presented): The fan array fan section in an air-handling system of claim 1, said array controller is programmed to operate said at least six fan units to produce a stable operating point and eliminate the surge effects.

Claim 28 (cancelled):

Claim 29 (previously presented): The fan array fan section in an air-handling system of claim 1, said array controller is programmed to selectively control the speed of each of said at least six fan units to run at substantially peak efficiency.

Claim 30 (cancelled):

Appl. No. 10/806,775
Amdt dated 11/18/2005

Claim 31 (previously presented): The fan array fan section in an air-handling system of claim 1, said air-handling compartment positionable within a structure such that said air-handling system conditions the air of said structure.

Claim 32 (previously presented): A fan array fan section in an air-handling system comprising:

- (a) a plurality of independently controllable fan units, each fan unit comprising an inlet cone, a fan, and a motor;
- (b) said plurality of fan units arranged in a fan array;
- (c) an air-handling compartment within which said fan array of fan units is positioned; and
- (d) an array controller for controlling said plurality of fan units to run at substantially peak efficiency by strategically turning selective ones of said plurality of fan units on and off.

Claim 33 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein said plurality of fan units are plenum fans.

Claim 34 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein said air-handling compartment has an airway path, said airway path being less than 72 inches.

Claim 35 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein said plurality of fan units are a plurality of fan units arranged in a fan array configuration selected from the group consisting of:

- (a) a true array configuration;
- (b) a spaced pattern array configuration;
- (c) a checker board array configuration;
- (d) rows slightly offset array configuration;
- (e) columns slightly offset array configuration; and
- (f) a staggered array configuration.

Claim 36 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein said plurality of fan units include at least two vertically arranged fan units.

Appl. No. 10/806,775
Amdt dated 11/18/2005

Claim 37 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein each of said plurality of fan units is positioned within a fan unit chamber.

Claim 38 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein each of said plurality of fan units is suspended within a respective said fan unit chamber such that there is an air relief passage therebelow.

Claim 39 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein each of said plurality of fan units is positioned within a fan unit chamber having at least one acoustically absorptive insulation surface.

Claim 40 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein each of said plurality of fan units is mounted in a grid system.

Claim 41 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein each of said plurality of fan units has a fan wheel diameter, wherein spacing between said plurality of fan units is less than 60% of said fan wheel diameter.

Claim 42 (previously presented): The fan array fan section in an air-handling system of claim 32, further comprising an array of backdraft dampeners, each backdraft dampener in line with a respective fan unit.

Claim 43 (previously presented): The fan array fan section in an air-handling system of claim 32, wherein each fan unit has a peak efficiency operating range outside of which it operates at a reduced efficiency, wherein said array controller is programmed to operate said plurality of fan units at substantially peak efficiency by strategically turning off at least one fan unit operating at reduced efficiency and running the remaining fan units within said peak efficiency operating range.

Claim 44 (previously presented): The fan array fan section in an air-handling system of claim 32, said array controller is programmed to operate said plurality of fan units at peak efficiency for a performance level based on a criteria selected from the following group of criteria:

- (a) air volume;

Appl. No. 10/806,775
Amdt dated 11/18/2005

- (b) level of air flow;
- (c) pattern of air flow; and
- (d) number of fan units to operate.

Claim 45 (previously presented): The fan array fan section in an air-handling system of claim 32, said array controller is programmed to operate said plurality of fan units to produce a stable operating point and eliminate the surge effects.

Claim 46 (previously presented): The fan array fan section in an air-handling system of claim 32, said array controller is programmed to selectively control the speed of each of said plurality of fan units to run at substantially peak efficiency.

Claim 47 (previously presented): The fan array fan section in an air-handling system of claim 32, said air-handling compartment positionable within a structure such that said air-handling system conditions the air of said structure.

Appl. No. 10/806,775
Amdt dated 11/18/2005

REMARKS/ARGUMENTS

Claims 1-10, 21, 23, 25, 27, 29 and 31-47 were pending of which Claims 1-6, 9, 10, 27, 29 and 31 were rejected and Claims 7, 8, 21, 23 and 25 were objected to. Claim 1 has been amended and Claim 23 has been cancelled.

The Examiner objected to Claims 7, 8, 21, 23 and 25 as being dependent upon a rejected base claim, but indicated that they would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Each of these claims depends from Claim 1. Claim 1 has been amended by incorporating the limitations of Claim 23 into Claim 1, thereby rendering Claim 1 allowable. Since Claims 7, 8, 21 and 25 depend from Claim 1, these claims are also allowable. No new matter has been added in the claims.

Claim Rejections – 35 U.S.C. §103

Claims 1-6, 9, 10, 27, 29 and 31 were rejected under 35 U.S.C. §103(a) as being unpatentable over Algrain et al. As noted above, the limitations of Claim 23 have been incorporated into Claim 1, thereby making Claim 1 allowable. Claims 2-6, 9, 10, 27, 29 and 31 depend from Claim 1 and these claims are therefore likewise allowable.

Allowed Claims

Claims 32-47 were allowed.

Claim 1 has been amended and Claim 23 has been cancelled leaving Claims 1-10, 21, 25, 27, 29 and 31-47 pending. For the above reasons, Applicants respectfully request allowance of Claims 1-10, 21, 25, 27, 29 and 31-47. Should the Examiner have any questions concerning this response, the Examiner is invited to call the undersigned at (408) 982-8201.

Appl. No. 10/806,775
Amdt dated 11/18/2005

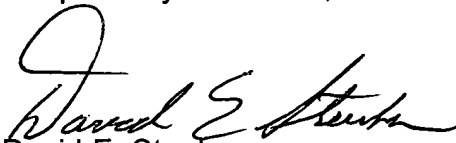
The undersigned notes that he has recently taken over the prosecution of this application and is acting pursuant to 37 CFR 1.34 pending execution of a power of attorney. Please note that a new attorney docket number has been assigned to this application.

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 11/18/05
Attorney for Applicant(s) Date of Signature

Respectfully submitted,


David E. Steuber
Attorney for Applicant(s)
Reg. No. 25,557

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PATENT APPLICATION FEE DETERMINATION RECORD

Effective October 1, 2003

Application or Docket Number

10806775

CLAIMS AS FILED - PART I

	(Column 1)	(Column 2)
TOTAL CLAIMS	22	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	20 minus 20 =	
INDEPENDENT CLAIMS	2 minus 3 =	
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

* If the difference in column 1 is less than zero, enter "0" in column 2

CLAIMS AS AMENDED - PART II

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	31	20	11
Independent	2	3	-
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

11/22/05

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total	31	31	-
Independent	2	3	-
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
Total			
Independent			
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

- * If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 - * If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
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BASIC FEE	385.00	OR	BASIC FEE	770.00
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL	385	OR	TOTAL	

SMALL ENTITY OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X\$ 9=	275	OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL	270	OR	TOTAL	
ADDIT. FEE		OR	ADDIT. FEE	

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL		OR	TOTAL	
ADDIT. FEE		OR	ADDIT. FEE	

RATE	ADDITIONAL FEE		RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL		OR	TOTAL	
ADDIT. FEE		OR	ADDIT. FEE	

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L8	755	(fan same array)and control and efficiency and program	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/01 08:24
L9	49	8 and (air same handl\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/01 08:25
L10	0	9 and (on same off)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/01 08:26
L11	29	9 and (compartment or chamber)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2005/12/01 08:26



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 LAKE OSWEGO, OR 97035

EXAMINER

NGUYEN, NINH H

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 12/05/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HUNT:FANARRI	2371

TITLE OF INVENTION: FAN ARRAY FAN SECTION IN AIR-HANDLING SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	03/06/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

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A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HUNT:FANARR1	2371

TITLE OF INVENTION: FAN ARRAY FAN SECTION IN AIR-HANDLING SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	03/06/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, NINH H	3745	415-119000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
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2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

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Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

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- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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 United States Patent and Trademark Office
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 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HUNT:FANARR1	2371
26790	7590	12/05/2005		
LAW OFFICE OF KAREN DANA OSTER, LLC PMB 1020 15450 SW BOONES FERRY ROAD #9 LAKE OSWEGO, OR 97035			EXAMINER NGUYEN, NINH H	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 12/05/2005

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
 (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

e

Notice of Allowability	Application No.	Applicant(s)	
	10/806,775	HOPKINS, LAWRENCE G.	
	Examiner	Art Unit	
	Ninh H. Nguyen	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment dated 11/22/05.
2. ☒ The allowed claim(s) is/are 1-10,21,25,27,29 and 31-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

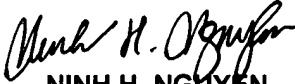
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


NINH H. NGUYEN
PRIMARY EXAMINER

Issue Classification 	Application/Control No.		Applicant(s)/Patent under Reexamination	
	10/806,775		HOPKINS, LAWRENCE G.	
	Examiner		Art Unit	
	Ninh H. Nguyen		3745	

ISSUE CLASSIFICATION									
ORIGINAL					CROSS REFERENCE(S)				
CLASS		SUBCLASS			CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)			
415		61			415	119			
INTERNATIONAL CLASSIFICATION					416	120			
F	0	4	D	25/16	417	3	423.5	426	
				/					
				/					
				/					
				/					

(Assistant Examiner) (Date)		(Primary Examiner) (Date)		Total Claims Allowed: 31	
(Legal Instruments Examiner) (Date)		(Primary Examiner) (Date)		O.G. Print Claim(s)	
12-1-05		12/01/05		1	
12-1-05		12/01/05		17	

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant										<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47	
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	15	31		61		91		121		151		181		
2	2	16	32		62		92		122		152		182		
3	3	17	33		63		93		123		153		183		
4	4	18	34		64		94		124		154		184		
5	5	19	35		65		95		125		155		185		
6	6	20	36		66		96		126		156		186		
7	7	21	37		67		97		127		157		187		
8	8	22	38		68		98		128		158		188		
9	9	23	39		69		99		129		159		189		
10	10	24	40		70		100		130		160		190		
	11	25	41		71		101		131		161		191		
	12	26	42		72		102		132		162		192		
	13	27	43		73		103		133		163		193		
	14	28	44		74		104		134		164		194		
	15	29	45		75		105		135		165		195		
	16	30	46		76		106		136		166		196		
	17	31	47		77		107		137		167		197		
	18		48		78		108		138		168		198		
	19		49		79		109		139		169		199		
	20		50		80		110		140		170		200		
11	21		51		81		111		141		171		201		
	22		52		82		112		142		172		202		
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	24		54		84		114		144		174		204		
12	25		55		85		115		145		175		205		
	26		56		86		116		146		176		206		
13	27		57		87		117		147		177		207		
	28		58		88		118		148		178		208		
14	29		59		89		119		149		179		209		
	30		60		90		120		150		180		210		



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BIBDATASHEET

Bib Data Sheet

CONFIRMATION NO. 2371

SERIAL NUMBER 10/806,775	FILING DATE 03/22/2004 RULE	CLASS 415	GROUP ART UNIT 3745	ATTORNEY DOCKET NO. Hunt:FanArr1
-----------------------------	---------------------------------------	--------------	------------------------	-------------------------------------

APPLICANTS

Lawrence G. Hopkins, Portland, OR;

DO NOT SCAN!

** CONTINUING DATA *****

This appln claims benefit of 60/456,413 03/20/2003
and claims benefit of 60/554,702 03/20/2004
and is a CIP of PCT/US04/08578 03/19/2004

** FOREIGN APPLICATIONS *****

none

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
** 06/08/2004

** SMALL ENTITY **

Foreign Priority claimed <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	STATE OR COUNTRY OR	SHEETS DRAWING 15	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 2
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input checked="" type="checkbox"/> no <input type="checkbox"/> Met after Allowance	Verified and Acknowledged Examiner's Signature _____ Initials _____			

ADDRESS

26790
LAW OFFICE OF KAREN DANA OSTER, LLC
PMB 1020
15450 SW BOONES FERRY ROAD #9
LAKE OSWEGO , OR
97035

TITLE

Fan array fan section in air-handling systems

FILING FEE RECEIVED 660	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time) <input type="checkbox"/> 1.18 Fees (Issue) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit
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CL 230

[illegible]

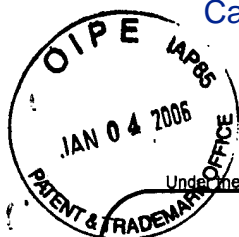
Ninh H. Nguyen

3745

[illegible]

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner

[illegible]



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PTO/SB/30 (04-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Request for Continued Examination (RCE) Transmittal

Address to:
Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Application Number	10/806,775
Filing Date	03/22/2004
First Named Inventor	Lawrence G. Hopkins
Art Unit	3745
Examiner Name	Ninh H. Nguyen
Attorney Docket Number	HTR007-1P US (new)

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.

Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. See Instruction Sheet for RCEs (not to be submitted to the USPTO) on page 2.

1. **Submission required under 37 CFR 1.114** Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).
 - a. ☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.
 - i. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
 - ii. ☐ Other _____
 - b. ☒ Enclosed
 - i. ☐ Amendment/Reply
 - ii. ☐ Affidavit(s)/ Declaration(s)
 - iii. ☒ Information Disclosure Statement (IDS)
 - iv. ☐ Other _____
2. **Miscellaneous**
 - a. ☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)
 - b. ☐ Other _____
3. **Fees** The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
 - a. ☒ The Director is hereby authorized to charge the following fees, any underpayment of fees, or credit any overpayments, to Deposit Account No. 50-2263. I have enclosed a duplicate copy of this sheet.
 - i. ☐ RCE fee required under 37 CFR 1.17(e)
 - ii. ☐ Extension of time fee (37 CFR 1.136 and 1.17)
 - iii. ☐ Other _____
 - b. ☐ Check in the amount of \$ _____ enclosed
 - c. ☒ Payment by credit card (Form PTO-2038 enclosed)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED		
Signature	<i>David E. Steuber</i>	Date
Name (Print/Type)	David E. Steuber	Registration No.
		25,557

CERTIFICATE OF MAILING OR TRANSMISSION		
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450 or facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.		
Signature	<i>David E. Steuber</i>	Date
Name (Print/Type)	David E. Steuber	12/30/2005

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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CL 232

01/05/2006 HBUENA1 00000067 10806775 395.00 DP
 01 FC:2801

PTO/SB/17 (12-04v2)
Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

FEE TRANSMITTAL For FY 2005		Complete if Known	
Effective on 12/08/2004. Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).		Application Number	10/806,775
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Filing Date	03/22/2004
TOTAL AMOUNT OF PAYMENT (\$)		First Named Inventor	Lawrence G. Hopkins
	395	Examiner Name	Ninh H. Nguyen
		Art Unit	3745
		Attorney Docket No.	HTR007-1P US (new)

METHOD OF PAYMENT (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 50-2263 Deposit Account Name: Silicon Valley Patent Grp

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____	_____	_____ / 50 = _____ (round up to a whole number)	_____ x _____	_____

4. OTHER FEE(S)

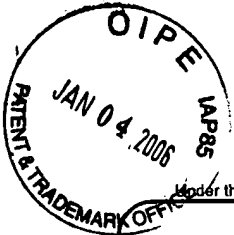
	Fees Paid (\$)
Non-English Specification, \$130 fee (no small entity discount)	0
Other (e.g., late filing surcharge): <u>Request For Continued Examination</u>	395

SUBMITTED BY		
Signature	<u>David E. Steuber</u>	Registration No. 25,557 (Attorney/Agent)
Name (Print/Type)	David E. Steuber	Telephone 408-982-8201
		Date 12/30/2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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CL 233



PTO/SB/81 (04-05)

Approved for use through 11/30/2005. OMB 0651-0035

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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**POWER OF ATTORNEY
and
CORRESPONDENCE ADDRESS
INDICATION FORM**

Application Number	10/806,775
Filing Date	03/22/2004
First Named Inventor	Lawrence G. Hopkins
Title	Fan Array Fan Section In Air- ...
Art Unit	3745
Examiner Name	Ninh H. Nguyen
Attorney Docket Number	HTR007-1P US (new)

I hereby revoke all previous powers of attorney given in the above-identified application.

I hereby appoint:

☒ Practitioners associated with the Customer Number:

34036

OR

☐ Practitioner(s) named below:

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please recognize or change the correspondence address for the above-identified application to:

☒ The address associated with the above-mentioned Customer Number:

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name

Address

City

State

Zip

Country

Telephone

Email

I am the:

☒ Applicant/Inventor.☐ Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

SIGNATURE of Applicant or Assignee of Record

Signature	<i>Lawrence G. Hopkins</i>	Date	12/21/05
Name	Lawrence G. Hopkins	Telephone	503-740-7610
Title and Company	R&D Director, Huntair, Inc.		

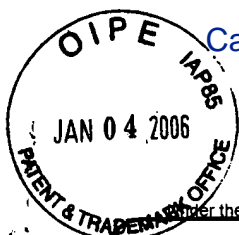
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

CL 234

RCC
JPW

PTO/SB/21 (09-04)

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

31

Application Number

10/806,775

Filing Date

03/22/2004

First Named Inventor

Lawrence G. Hopkins

Art Unit

3745

Examiner Name

Ninh H. Nguyen

Attorney Docket Number

HTR007-1P US (new)

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input checked="" type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Terminal Disclaimer	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Request for Refund	Request for Continued Examination
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	Credit Card Payment Form
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> Landscape Table on CD	Return Postcard
<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	Remarks	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	Please charge Deposit Account No. 50-2263 for any additional or underpayment of fee(s). Please note that a new attorney docket number has been assigned to this application. Applicant does not admit that the references enclosed herewith are prior art.	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Silicon Valley Patent Group LLP		
Signature			
Printed name	David E. Steuber		
Date	12/30/2005	Reg. No.	25,557

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	David E. Steuber	Date	12/30/2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

CL 235

Substitute for form 1449/PTO

(Use as many sheets as necessary)

Sheet	1	of	2
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Application Number	10/806,775
Filing Date	03/22/2004
First Named Inventor	Lawrence G. Hopkins
Art Unit	3745
Examiner Name	Ninh H. Nguyen
Attorney Docket Number	HTR007-1P US (new)

[illegible][illegible]Date
Considered

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

CL 236

PTO/SB/08B (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/806,775
		Filing Date	03/22/2004
		First Named Inventor	Lawrence G. Hopkins
		Art Unit	3745
		Examiner Name	Ninh H. Nguyen
Sheet 2 of 2	Attorney Docket Number	HTR007-1P US (new)	

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	5	AAON worksheet and drawing regarding Borders East Towers job for customer Borders Group, dated 02/26/2001 and 02/06/2001 (2 pages)	
	6	AAON order form, estimating worksheet, and facsimile transmission regarding The Commons job, dated 09/15/1998, 09/30/1998 and 06/30/1998 (3 pages)	
	7	AAON wiring diagram assignment and verification regarding Farm Show Arena job, 04/01/2002 (1 page)	
	8	AAON worksheet and drawing regarding Harrison Hills job, both dated 02/26/2002 (2 pages)	
	9	AAON RL Feature Master Number sheet, dated 10/17/2001 (1 page)	
	10	Mammoth Selection Guide for Custom Penthouse (200-410 Tons Cooling-only VAV configurations, 1992 (14 pages)	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

CL 237

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	4	(fan and array and plurality and compartment and efficiency and operat\$3 and controller and peak and strategic\$3)	US-PGPUB	OR	ON	2006/01/23 14:01



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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/806,775	03/22/2004	Lawrence G. Hopkins	HTR007-1P US

34036
SILICON VALLEY PATENT GROUP LLP
2350 MISSION COLLEGE BOULEVARD
SUITE 360
SANTA CLARA, CA 95054

CONFIRMATION NO. 2371

OC000000017896686

OC000000017896686

Date Mailed: 01/24/2006

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/04/2006.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.


KIMBERLY D COOPER
3700 (571) 272-4339

OFFICE COPY

CL 239



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United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NUMBER	FILING OR 371 (c) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/806,775	03/22/2004	Lawrence G. Hopkins	HUNT:FANARR1

26790
LAW OFFICE OF KAREN DANA OSTER, LLC
PMB 1020
15450 SW BOONES FERRY ROAD #9
LAKE OSWEGO, OR 97035

CONFIRMATION NO. 2371

OC000000017896639

OC000000017896639

Date Mailed: 01/24/2006

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/04/2006.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Ms Cooper
KIMBERLY D COOPER
3700 (571) 272-4339

OFFICE COPY



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
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 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

34036 7590 01/30/2006

SILICON VALLEY PATENT GROUP LLP
 2350 MISSION COLLEGE BOULEVARD
 SUITE 360
 SANTA CLARA, CA 95054

EXAMINER

NGUYEN, NINH H

ART UNIT

PAPER NUMBER

3745

DATE MAILED: 01/30/2006

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HTR007-IP US	2371

TITLE OF INVENTION: FAN ARRAY FAN SECTION IN AIR-HANDLING SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	05/01/2006

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

34036 7590 01/30/2006

SILICON VALLEY PATENT GROUP LLP
 2350 MISSION COLLEGE BOULEVARD
 SUITE 360
 SANTA CLARA, CA 95054

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HTR007-1P US	2371

TITLE OF INVENTION: FAN ARRAY FAN SECTION IN AIR-HANDLING SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	05/01/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, NINH H	3745	415-119000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant, a registered attorney or agent, or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HTR007-1P US	2371
34036	7590	01/30/2006		
SILICON VALLEY PATENT GROUP LLP 2350 MISSION COLLEGE BOULEVARD SUITE 360 SANTA CLARA, CA 95054			EXAMINER NGUYEN, NINH H	
			ART UNIT	PAPER NUMBER
			3745	

DATE MAILED: 01/30/2006

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
 (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability	Application No.	Applicant(s)	
	10/806,775	HOPKINS, LAWRENCE G.	
	Examiner	Art Unit	
	Ninh H. Nguyen	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Request for Continued Examination dated 01/04/06.
2. ☒ The allowed claim(s) is/are 1-10,21,25,27,29 and 31-47.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

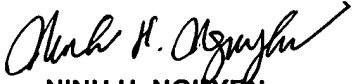
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>01/04/06</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


NINH H. NGUYEN
PRIMARY EXAMINER

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO

(Use as many sheets as necessary)

Sheet	1	of	2
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Application Number	10/806,775
Filing Date	03/22/2004
First Named Inventor	Lawrence G. Hopkins
Art Unit	3745
Examiner Name	Ninh H. Nguyen
Attorney Docket Number	HTR007-1P US (new)

[illegible][illegible]

01/23/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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CL 245

PTO/SB/08B (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known	
		Application Number	10/806,775
		Filing Date	03/22/2004
		First Named Inventor	Lawrence G. Hopkins
		Art Unit	3745
		Examiner Name	Ninh H. Nguyen
Sheet 2	of 2	Attorney Docket Number	HTR007-1P US (new)


NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>Alma</i>	5	AAON worksheet and drawing regarding Borders East Towers job for customer Borders Group, dated 02/26/2001 and 02/06/2001 (2 pages)	
	6	AAON order form, estimating worksheet, and facsimile transmission regarding The Commons job, dated 09/15/1998, 09/30/1998 and 06/30/1998 (3 pages)	
	7	AAON wiring diagram assignment and verification regarding Farm Show Arena job, 04/01/2002 (1 page)	
	8	AAON worksheet and drawing regarding Harrison Hills job, both dated 02/26/2002 (2 pages)	
	9	AAON RL Feature Master Number sheet, dated 10/17/2001 (1 page)	
<i>Alma</i>	10	Mammoth Selection Guide for Custom Penthouse (200-410 Tons Cooling-only VAV configurations, 1992 (14 pages)	

Examiner Signature	<i>Ninh H. Nguyen</i>	Date Considered	01/23/06
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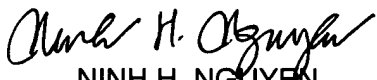
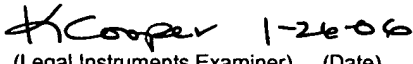
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Issue Classification 	Application/Control No.		Applicant(s)/Patent under Reexamination	
	10/806,775		HOPKINS, LAWRENCE G.	
	Examiner		Art Unit	
	Ninh H. Nguyen		3745	

ISSUE CLASSIFICATION									
ORIGINAL					CROSS REFERENCE(S)				
CLASS		SUBCLASS		CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
415		61		415	119				
INTERNATIONAL CLASSIFICATION				416	120				
F	0	4	D	25/16	417	3	423.5	426	
				/					
				/					
				/					
				/					

// (Assistant Examiner) (Date)		 NINH H. NGUYEN PRIMARY EXAMINER 01/23/06 (Primary Examiner) (Date)	Total Claims Allowed: 31	
 (Legal Instruments Examiner) (Date)			O.G. Print Claim(s) 1	O.G. Print Fig. 17

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA				<input type="checkbox"/> T.D.				<input type="checkbox"/> R.1.47			
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original		
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2	2	16	32		62		92		122		152		182		
3	3	17	33		63		93		123		153		183		
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Search Notes**Application/Control No.**

10/806,775

Examiner

Ninh H. Nguyen

Applicant(s)/Patent under Reexamination

HOPKINS, LAWRENCE G.

Art Unit

3745

SEARCHED

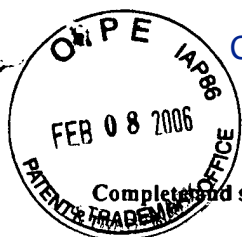
Class	Subclass	Date	Examiner
Updated	above	1/23/2006	NHN

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
Updated East search	1/23/2006	NHN
Interference search history printout		



PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: MailMail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

34036 7590 01/30/2006

SILICON VALLEY PATENT GROUP LLP
2350 MISSION COLLEGE BOULEVARD
SUITE 360
SANTA CLARA, CA 95054

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmittal

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

David E. Steuber (Depositor's name)
David E. Steuber (Signature)
02/03/2006 (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,775	03/22/2004	Lawrence G. Hopkins	HTR007-1P US	2371

TITLE OF INVENTION: FAN ARRAY FAN SECTION IN AIR-HANDLING SYSTEMS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$700	\$300	\$1000	05/01/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, NINH H	3745	415-119000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

Silicon Valley
Patent Group LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

Huntair Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Tualatin Oregon

02/08/2006 MBIZUNE2 00000069 10806775

01 FC:1504
02 FC:1501300.00 OP
1400.00 OPPlease check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
☒ Payment by credit card. Form PTO-2038 is attached.
☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 50-2263 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☒ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the record of the United States Patent and Trademark Office.

Authorized Signature

David E. Steuber

Date

02/03/2006

Typed or printed name

David E. Steuber

Registration No.

25,557

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